The Monodromy Group

of a

Two Parameter Family of K3 Surfaces

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Abstract

We study the complex structure moduli space of a two-parameter family of K3 surfaces realised as a hypersurface in a toric variety. The singular locus contains several components which intersect at various points. We study the monodromy around each component of the singular locus, including the divisors resulted from blowing-up tangential and multiple crossings. We provide analytic continuations for the period integrals which enable us to compute the monodromy group.